

CLAIMS

What is claimed is:

1 1-22. (Cancelled)

1 37. (Amended Once) A shielded housing formed by the method
2 comprising:

3 forming a flat pattern of the shielded housing from a
4 sheet of conductive material, the flat pattern including one
5 or more forward fingers extending from an edge thereof;

6 folding the flat pattern along fold lines to form flaps
7 and sides of the shielded housing; and

8 bending the flat pattern along bend lines to form the
9 one or more forward fingers of the shielded housing.

1 38. (Original) A method of assembling an opto-electronic
2 module comprising:

3 forming a shielded housing with an open end, the
4 shielded housing formed out of a sheet of conductive
5 material to provide electromagnetic radiation shielding and
6 protection of components, the shielded housing including one
7 or more fingers to couple the shielded housing to ground;

8 assembling optical, electrical and optical-electrical
9 components into a chassis to form a subassembly;

10 inserting the subassembly into the open end of the
11 shielded housing, the shielded housing around the
12 subassembly; and

13 closing the open end of the shielded housing to hold
14 the subassembly and the shielded housing assembled together.

1 39. (Original) The method of claim 38 wherein,
2 the shielding housing is a one-piece shielding housing
3 to protect components and to shield electromagnetic
4 radiation.

- 1 40. (Original) The method of claim 38 wherein,
2 the open end is a back side and the inserting includes
3 inserting a front end of the subassembly into the
4 open end of the back side of the shielded housing.
- 1 41. (Original) The method of claim 40 wherein,
2 the closing of the open end of the back side includes
3 folding a left side wing and a right side wing
4 into the open end, and
5 folding a back side flap down over the open end to
6 couple to the left side wing and the right side wing.
- 1 42. (Original) The method of claim 38 wherein,
2 the open end is a front side and the inserting includes
3 inserting a rear end of the subassembly into the open
4 end of the front side of the shielded housing.
- 1 43. (Amended Once) The method of claim 42 wherein,
2 the closing of the open end of the front side includes
3 folding a strap and a septum of the shielded
4 housing, the strap folded across the open end to strap
5 the subassembly into the shielded housing, the septum
6 folded into the open end to couple to the bottom side
7 of the shielded housing to hold the subassembly
8 strapped into the shielded housing.
- 1 44. (Amended Once) The method of claim 38 wherein,
2 the forming of the shielded housing includes
3 stamping a pattern of the shielded housing into
4 the sheet of conductive material, the pattern including
5 the one or more fingers near an edge of the flat sheet,
6 folding the sheet of conductive material along a
7 plurality of fold lines into a multi-sided
8 rectangularly shaped container but for the open end,

9 and
10 bending the one or more fingers into shape.

1 45. (Amended Once) An opto-electronic module formed by the
2 method comprising:

3 forming a shielded housing with an open end, the
4 shielded housing formed out of a sheet of conductive
5 material to provide electromagnetic radiation shielding and
6 protection of components, the shielded housing including one
7 or more forward fingers extending from an edge to couple the
8 shielded housing to ground;

9 assembling optical, electrical and optical-electrical
10 components into a chassis to form a subassembly;

11 inserting the subassembly into the open end of the
12 shielded housing, the shielded housing around the
13 subassembly; and

14 closing the open end of the shielded housing to hold
15 the subassembly and the shielded housing assembled together.

1 46-63. (Cancelled)

1 64. (Original) A method to assemble an EMI shielding module
2 comprising:

3 forming a plurality of substantially equidistant spring
4 fingers along an edge of a flat sheet;

5 forming a strap at the edge of the flat sheet and a
6 septum on the end of the strap;

7 forming a pair of bottom flaps in the flat sheet;

8 folding the flat sheet along axes to form a container
9 substantially in the shape of rectangular box, the
10 rectangular box having a first end and a second end, the
11 first end having the plurality of fingers along each of a
12 plurality of edges and an opening for cable connectors, the
13 second end having a backside flap;

14 folding the strap across the opening for cable
15 connectors; and
16 coupling the septum to inner surfaces of the bottom
17 flaps to hold the strap across the opening.

1 65. (Original) The method of claim 64 wherein,
2 the EMI shielding module is a one-piece shielded
3 housing to protect components and to shield electromagnetic
4 radiation.

1 66. (Original) The method of claim 64 wherein,
2 the EMI shielding module encloses a module chassis
3 frame, the module chassis frame being a central structural
4 support to which one or more optical, electrical and
5 optical-electrical components used in transmission and
6 reception of optical signals are attached.

1 67-76. (Cancelled)

1 77. (Original) A method to assemble an optical transmitter
2 and/or receiver, the method comprising:
3 forming a plurality of fingers, a strap, and a septum
4 along a first edge of a conductive sheet;
5 placing the conductive sheet on a module chassis frame,
6 the module chassis frame having a plurality of components
7 used in transmitting and/or receiving optical signals;
8 folding the conductive sheet around the module chassis
9 frame such that the conductive sheet substantially encloses
10 the module chassis frame but for a frontal opening adjacent
11 to the first edge.

1 78. (Original) The method of claim 77 further comprising:
2 bending the strap and the septum around a front end of
3 the module chassis frame to hold the folded conductive sheet
4 and the module chassis frame together.

- 1 79. (Original) The method of claim 77 wherein,
2 the fingers to electrically ground the folded
3 conductive sheet to a ground of a host system.
- 1 80. (Original) The method of claim 77 wherein,
2 the conductive sheet is one of metal, conductive
3 plastic, and plated plastic.
- 1 81. (Original) The method of claim 77 further comprising:
2 bending the plurality of fingers outward from the
3 frontal opening.
- 1 82. (Original) The method of claim 77 further comprising:
2 lifting the plurality of fingers up from an outer
3 surface of the conductive sheet.
- 1 83-94. (Cancelled)
- 1 95. (New) The shielded housing of claim 37 wherein,
2 the shielding housing is a one-piece shielded housing
3 to protect components and to shield electromagnetic
4 radiation.
- 1 96. (New) The shielded housing of claim 37 wherein,
2 prior to the folding and the bending,
3 placing the flat pattern onto a chassis including an
4 opto-electronic device to process optical and electrical
5 signals, and
6 the folding and the bending of the flat pattern is
7 around the chassis to assemble the chassis and the shielded
8 housing together.
- 1 97. (New) The shielded housing of claim 37 wherein,
2 the folding and the bending of the flat pattern
3 substantially forms the shielded housing but for a front

4 opening, and
5 the method further includes
6 performing final folding and final bending of a strap
7 and a septum to close the front opening.

1 98. (New) The shielded housing of claim 37 wherein,
2 the folding and the bending of the flat pattern
3 substantially forms the shielded housing but for a rear
4 opening, and
5 the method further includes
6 performing final folding and final bending of a back
7 side flap to close the rear opening.

1 99. (New) The shielded housing of claim 37 wherein,
2 the flat pattern further includes a pair of tangs, a
3 pair of tang window openings, a strap, and a septum.

1 100. (New) The shielded housing of claim 37 wherein,
2 the folding and the bending forms the shielded housing
3 including
4 a top side,
5 a first left side flap including a left wing flap,
6 a first right side flap including a right wing flap,
7 a second left side flap including a bottom left side
8 flap,
9 a second right side flap including a bottom right side
10 flap, and
11 a back side flap including a retaining flap.

1 101. (New) The shielded housing of claim 100 wherein,
2 the back side flap includes a pair of tangs,
3 the left wing flap includes a tang window opening to
4 mate with one of the pairs of tangs, and
5 the right wing flap includes a tang window opening to
6 mate with one of the pairs of tangs.

- 1 102. (New) The shielded housing of claim 101 wherein,
2 a strap extends from a front edge of the top side at
3 one end,
4 and a septum extends at an opposite end of the strap.
- 1 103. (New) The shielded housing of claim 100 wherein,
2 the one or more forward fingers extend from a front
3 edge of the top side, the second left side flap, the second
4 right side flap, the bottom left side flap, and the bottom
5 right side flap.
- 1 104. (New) The shielded housing of claim 37 wherein,
2 the one or more forward fingers to couple to a host
3 panel to ground the shielded housing and to seal around an
4 opening in the host panel to avoid electromagnetic radiation
5 leaking out therefrom.
- 1 105. (New) The shielded housing of claim 37 wherein,
2 the flat pattern is formed by etching the sheet of
3 conductive material.
- 1 106. (New) The shielded housing of claim 37 wherein,
2 the flat pattern is by formed stamping the sheet of
3 conductive material.
- 1 107. (New) The shielded housing of claim 37 wherein,
2 the flat pattern is formed by cutting the sheet of
3 conductive material.
- 1 108. (New) The opto-electronic module of claim 45 wherein,
2 the shielding housing is a one-piece shielding housing
3 to protect components and to shield electromagnetic
4 radiation.
- 1 109. (New) The opto-electronic module of claim 45 wherein,

the open end is a back side and the inserting includes inserting a front end of the subassembly into the open end of the back side of the shielded housing.

110. (New) The opto-electronic module of claim 109 wherein, the closing of the open end of the back side includes folding a left side wing and a right side wing into the open end, and folding a back side flap down over the open end to couple to the left side wing and the right side wing.

111. (New) The opto-electronic module of claim 45 wherein, the open end is a front side and the inserting includes inserting a rear end of the subassembly into the open end of the front side of the shielded housing.

112. (New) The opto-electronic module of claim 111 wherein, the closing of the open end of the front side includes folding a strap and a septum of the shielded housing, the strap folded across the open end to strap the subassembly into the shielded housing, the septum folded into the open end to couple to the bottom side of the shielded housing to hold the subassembly strapped into the shielded housing.

113. (New) The opto-electronic module of claim 45 wherein, the forming of the shielded housing includes stamping a pattern of the shielded housing into the sheet of conductive material, the pattern including the one or more forward fingers extending from the edge of the sheet, folding the sheet of conductive material along a plurality of fold lines into a multi-sided rectangularly shaped container but for the open end, and

11 bending the one or more forward fingers into
12 shape.

1 114. (New) An optical transmitter and/or receiver formed by
2 the method comprising:
3 forming a plurality of fingers, a strap, and a septum
4 along a first edge of a conductive sheet;
5 placing the conductive sheet on a module chassis frame,
6 the module chassis frame having a plurality of components
7 used in transmitting and/or receiving optical signals;
8 folding the conductive sheet around the module chassis
9 frame such that the conductive sheet substantially encloses
10 the module chassis frame but for a frontal opening adjacent
11 to the first edge.

1 115. (New) The optical transmitter and/or receiver of claim
2 114 formed by the method further comprising:
3 bending the strap and the septum around a front end of
4 the module chassis frame to hold the folded conductive sheet
5 and the module chassis frame together.

1 116. (New) The optical transmitter and/or receiver of claim
2 114 wherein,
3 the fingers to electrically ground the folded
4 conductive sheet to a ground of a host system and to seal an
5 opening in a host panel of the host system to avoid
6 electromagnetic radiation leaking out through the opening in
7 the host panel.

1 117. (New) The optical transmitter and/or receiver of claim
2 114 wherein,
3 the conductive sheet is one of metal, conductive
4 plastic, and plated plastic.

1 118. (New) The optical transmitter and/or receiver of claim

2 114 formed by the method further comprising:

3 bending the plurality of fingers outward from the
4 frontal opening to form a plurality of forward fingers
5 extending out therefrom.

1 119. (New) The optical transmitter and/or receiver of claim

2 114 formed by the method further comprising:

3 lifting the plurality of fingers up from an outer
4 surface of the conductive sheet to form a plurality of
5 backward fingers.